

**WHAT IS CLAIMED IS:**

1           1.     An image forming apparatus, comprising;  
2           a photosensitive drum;  
3           a pivot inserted through a center of the photosensitive drum for rotatably supporting the  
4           photosensitive drum; and  
5           a mass body disposed on the pivot for changing a frequency of the pivot by changing a  
6           center of gravity and a shape of the pivot.

1           2.     The image forming apparatus of claim 1, wherein the mass body is disposed at a  
2           predetermined distance from an inner circumference of the photosensitive drum.

1           3.     The image forming apparatus of claim 2, wherein the mass body has a shape  
2           which adds an evenly distributed load to the pivot in a longitudinal direction thereof.

1           4.     The image forming apparatus of claim 3, wherein the mass body comprises a  
2           cylinder.

1           5.     The image forming apparatus of claim 2, wherein the center of gravity of the mass  
2           body is toward an area where noise and vibration of the photosensitive drum are generated.

1           6.     The image forming apparatus of claim 2, wherein the mass body is made of  
2 rubber material.

1           7.     The image forming apparatus of claim 1, wherein the mass body is formed  
2 integrally with the pivot.

1           8.     The image forming apparatus of claim 1, wherein the mass body has in a shape  
2 which adds an evenly distributed load to the pivot in a longitudinal direction thereof.

1           9.     The image forming apparatus of claim 8, wherein the mass body comprises a  
2 cylinder.

1           10.    The image forming apparatus of claim 1, wherein the center of gravity of the mass  
2 body is toward an area where noise and vibration of the photosensitive drum are generated.

1           11.    The image forming apparatus of claim 1, wherein the mass body is made of  
2 rubber material.

12. In an image forming apparatus, comprising;

a photosensitive drum; and

a pivot inserted through a center of the photosensitive drum for rotatably supporting the photosensitive drum;

the improvement wherein a mass body is disposed on, and in surrounding relation to, the pivot of the photosensitive drum for changing a center of gravity and a shape of the pivot.

13. In the image forming apparatus of claim 12, wherein the mass body is disposed at a predetermined distance from an inner circumference of the photosensitive drum.

14. In the image forming apparatus of claim 12, wherein the mass body add an evenly distributed load to the pivot in a longitudinal direction of the pivot.

15. In the image forming apparatus of claim 14, wherein the mass body comprises a cylinder.

16. In the image forming apparatus of claim 12, wherein the center of gravity of the mass body is located at a point near to an area where noise and vibration of the photosensitive drum are generated.

1           17.    In the image forming apparatus of claim 12, wherein the mass body is made of  
2 rubber material.

1           18.    In the image forming apparatus of claim 12, wherein the mass body is formed  
2 integrally with the pivot.

1           19.    In the image forming apparatus of claim 12, wherein the mass body comprises a  
2 cylinder.